

REMARKS

Claim 5 is objected to because of an informality, which has been corrected in accordance with the suggestion of the Office action.

Claims 13-17 stand rejected under 35 USC 112, second paragraph, as being indefinite because there is no antecedent basis for “the chamber” in line 5 of Claim 13. In accordance with a suggestion of the Office action, Claim 13 has been amended to remove the basis for this rejection.

Claims 1-17 stand rejected under 35 USC 102(b) as anticipated by the patent Lemieux et al. (the ‘206 patent). According to the Office action, the ‘206 patent discloses a system including a source of line pressure 24. The control valve 100 connected to line pressure and exhaust pressure for producing control pressure in a forward state, and a friction element 38 connected to line pressure in a reverse state and indirectly connected to the control valve in the forward state.

There is an error in this characterization of the system disclosed in the ‘206 patent. For example, the source of line pressure is not pump 24, which is a source of hydraulic flow, but not line pressure. The source of line pressure is valve 104, which regulates the magnitude of line pressure in response to electric current signals from an electronic microprocessor and applied to the solenoid 100. The signals control the position of the spool of the line pressure regulator valve 104, where line output pressure is modulated between vacuum pressure and feedback line pressure.

A solenoid pressure regulator valve 130 modulates the magnitude of pressure supplied to the first solenoid valve 180 and a second solenoid valve 182, and supplies regulated pressure in a reverse drive condition to first on/off valve 270 and a second on/off valve 300. The manual valve 350 directs line pressure to five valves 130, 180, 220, 270, and 300 in response to the position of the manual valve spool 364, which is established manually by the vehicle operator.

The operation of the system of the '206 patent is described at column 9, line 22-column 10, line 21. From this description it can be seen that when the manual valve 350 is moved to the R range position, it discharges flow from the pump that enters the manual valve, passes through the bore 376 into passage 362 to the first on/off valve 270, through which it is directed to the first solenoid valve 180. Solenoid valve 180 then directs flow to the release chamber 60 of intermediate servo 54.

Pump discharge is connected through orifice 124 to the chamber of the line pressure regulator valve 104. Passage 140 carries fluid from the pump through orifice 122 into chamber 144 of the solenoid pressure regulator valve 130. Hydraulic fluid at a reduced regulator valve pressure exits chamber 144 through passage 148, through which it is carried to the second on/off valve 300. Modulator valve 150 is pressurized from the discharge side of the pump by way of the manual valve 350 through the passage 174, which directs flow into chamber 162. Flow from chamber 162 is carried in passage 164 to the chamber 236 of the second solenoid valve 220. Flow leaves chamber 236 through passage 238 and is carried by passage 240 to the low-reverse servo 84. Passage 238, in addition to providing flow to passage 240, also directs flow to passage 284 and to chamber 282 of the first on/off valve 270. This action places valve 270 in the ON condition, which causes the release chamber 60 to be pressurized. The reverse-high clutch 38 is pressurized through passage 386, which intersects with passage 206.

Independent claims 1, 7, and 13 have been amended to recite that a manual valve communicates with a line pressure source. A reverse state of the manual valve connects the line pressure source to the friction element through a hydraulic path that includes the manual valve, but no other valve. This limitation of the claims of the present invention patentably distinguishes the invention from the system disclosed in the '206 patent, which includes at least five additional valves, each of which participates in the application of the friction element when the manual valve is moved to the reverse state position.

Claims 1-17, as amended, define the present invention such that it is patentably distinguished over the cited prior art references. Claims 1-17, as amended, appear now in condition for allowance. Favorable action is respectfully solicited.

Respectfully submitted,



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